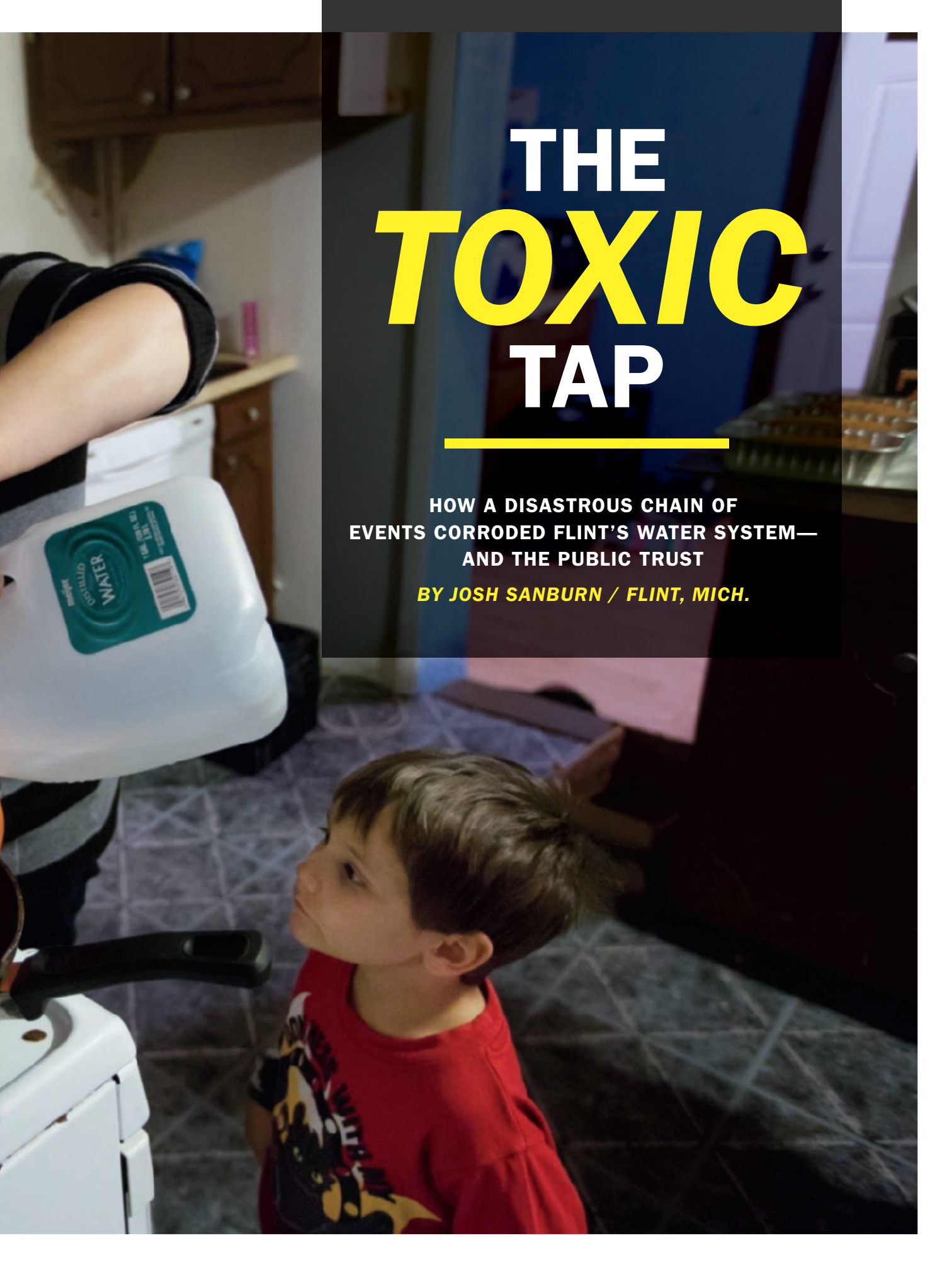




Lee-Anne Walters says she will never use tap water again. At her Flint home she warms bottled water for her sons' weekly baths

PHOTOGRAPH BY RYAN GARZA

A young boy with dark hair, wearing a red t-shirt with a graphic, is looking up at a large white plastic water jug. The jug is being poured from a tap, and the liquid is visible inside. The background shows a kitchen with wooden cabinets and a tiled floor.

THE *TOXIC* TAP

HOW A DISASTROUS CHAIN OF
EVENTS CORRODED FLINT'S WATER SYSTEM—
AND THE PUBLIC TRUST

BY JOSH SANBURN / FLINT, MICH.



LaShanti Redmond, 10, has her lead level checked during an event at a local school



THE FIRST THING many residents noticed after water from the Flint River began flowing through their taps was the color. Blue one day, tinted green the next, sometimes shades of beige, brown, yellow. Then there was the smell. It was ripe and pungent—some likened it to gasoline, others to the inside of a fish market. After a couple of months, Melissa Mays, a 37-year-old mother of four, says her hair started to fall out in clumps, clogging the shower drain. She broke out in rashes and developed a respiratory infection, coughing up phlegm that tasted like cleaning products.

Mays wasn't alone. Since April 2014, when Flint began drawing its water from the local river instead of buying Lake Huron water from Detroit—in order to save money—residents in this ailing industrial city began complaining of burning skin, hand tremors, hair loss, even seizures. Children were being diagnosed with anemia. Parents were finding strange red splotches on their hands and faces.

Yet for almost 19 months, as Flint River water corroded the city's decades-old pipes and leached lead into the sinks and showers of a city of almost 100,000 people, officials repeatedly told residents the water was fine. Flint's mayor appeared in front of TV cameras and gulped it down. A spokesman for the state's top environmental regulator said anyone concerned about the water should "relax." A warning memo written by a specialist at the U.S. Environmental Protection Agency went unheeded, and a city council vote to return the city to Detroit's supply was overruled by an unelected emergency manager

EFFECTS OF LEAD IN THE BODY

1

HARM TO THE BLOOD

Lead is first absorbed into the blood, where it interferes with proper function. For kids, experts say no level is safe.

2

DAMAGE TO THE BRAIN

Lead exposure is very dangerous for kids under age 6, since it impacts their rapidly growing brains. IQ and ability to pay attention can be affected.

appointed by the governor. It wasn't until late September 2015, when researchers at Hurley Medical Center in Flint reported that the incidence of lead contamination in the blood of children under 5 had doubled since the switch, that officials began to acknowledge the scope of the crisis.

Since then, an emergency that had been brewing largely out of sight has erupted into a national concern. Presidential candidates from both parties have been asked about it on the campaign trail. Senator Bernie Sanders called for Michigan Governor Rick Snyder, a Republican, to resign, while his Democratic rival Hillary Clinton framed it as a matter of race and inequality at the latest Democratic debate. "We've had a city in the United States of America where the population, which is poor in many ways and majority African American, has been drinking and bathing in lead-contaminated water," Clinton said Jan. 17. "I'll tell you what—if the kids in a rich suburb of Detroit had been drinking contaminated water and being bathed in it there would've been action."

President Obama weighed in during a visit to Detroit on Jan. 20. "I know that if I was a parent up there, I would be beside myself that my kids' health could be at risk," he said. "It is a reminder of why you can't shortchange basic services that we provide to our people."

Over the past month, the wheels of government, which had barely turned for over a year, creaked into action. On Jan. 12, seven days after declaring a state of emergency, Snyder mobilized the National Guard to patrol the city and hand out water.



Construction on a new pipeline to connect Flint to Lake Huron water



Governor Rick Snyder was contrite in a statewide address on Jan. 19

Four days later, President Obama designated Flint as a federal emergency area and freed \$5 million in aid. And on Jan. 20, as calls for him to resign over his handling of the crisis grew louder, Snyder used his State of the State address to announce that he was seeking \$28 million in state funding for Flint while offering a belated apology. “Government failed you,” Snyder said. “I am sorry, and I will fix it.”

To the residents of Flint, the sudden attention does little to offset more than a year’s worth of neglect. High levels of lead can lead to developmental problems and brain damage, and children under the age of 6 are considered especially vulnerable. Local cases of Legionnaires’ disease, a potentially deadly form of pneumonia, spiked after Flint switched its water supply. Ten of the 87 sickened people died, and health officials are now investigating a link between the outbreak and the river water. And though the city returned to Detroit’s water supply in October, the lead pipes remain so corroded that officials say the water is still unsafe to drink. A decision made to save money has crippled the city’s aging infrastructure and potentially poisoned a generation of kids. “We’re not a third-world country,” says Flint resident Tonya Burns. “Water is a natural right.”

How can government fail at a job so fundamental we take it as a given? The answer is a disastrous combination of bad policy, shortsighted decisions and bureaucratic malfeasance. Added up, the chain of neglect and incompetence has led many in Flint to see something more sinister: an absence of democracy. The city that gave birth to General Motors

3

LONG-TERM BUILDUP

Chronic exposure to lead can lead to accumulations in organs and bones. The metal can remain in bones for years after exposure.

4

INSIDIOUS UPTAKE

If a person’s diet is low in calcium or iron, the body may confuse lead for those nutrients and absorb it instead. A healthy diet helps.

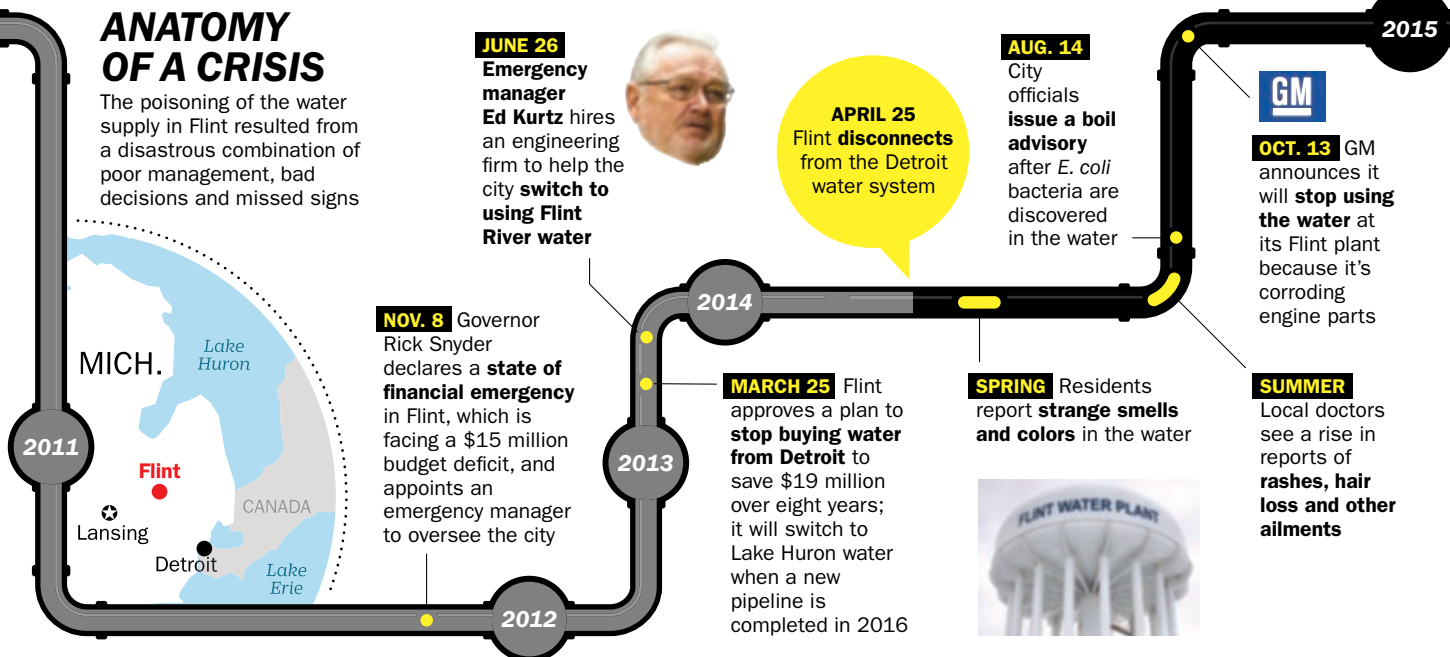
has fallen so far through the cracks that it feels as if the rest of the country has left it behind. The median income is less than \$25,000—roughly half the state average. Predominantly Democratic and African American, over 60% of Flint and the surrounding Genesee County voted for Snyder’s opponent in 2014. And since 2011, it has largely been run by a series of unelected emergency managers appointed by Snyder. These managers, whose authority supersedes that of local elected officials, made critical decisions that helped bring on the water crisis and make it worse. “We’re poor,” says John Pemberton, 67, a Flint resident. “And because we don’t have anybody on our side that has any clout, Snyder didn’t care.”

Dr. Mona Hanna-Attisha, a Flint pediatrician whose research confirmed the rising lead levels, has since been praised for her work, with Snyder calling her out by name in his State of the State. But she is unsparing in her diagnosis of what went wrong: “They were being neglected,” she says at her office in Hurley’s children’s ward. “Moms were complaining. People were going to town-hall meetings and getting arrested. But nobody listened to them. It had to take evidence that children were being poisoned for people to listen, and that is too late.”

THE CITY’S BORN-AND-BRED residents—who sometimes call themselves “Flintstones”—can still remember when Flint was not just a thriving city but a place where the American Dream took root. The reason is printed on the signs that still arch above Saginaw Street, which crosses the winding yellow-

ANATOMY OF A CRISIS

The poisoning of the water supply in Flint resulted from a disastrous combination of poor management, bad decisions and missed signs



ish-green Flint River: FLINT, VEHICLE CITY. Over a century ago, General Motors started here. Buick and Chevrolet once called the city home, as did a range of related industries whose factories dotted the banks of the river. A strike in the 1930s gave birth to the United Auto Workers—and jump-started the modern labor union in the U.S.

But as automobile-manufacturing jobs moved overseas, Flint began a slow decline into the 21st century. By 2011, the city's population was 100,000, half of what it was at its peak in 1960. With jobs scarce and better-off families escaping to the suburbs, Flint's tax base hollowed out. Facing \$15 million in debt, in 2011, Snyder appointed the first of four emergency managers to effectively run the city.

One idea for how Flint could save money was water. Since the 1960s, Flint had been buying its water from Detroit. But the Motor City was facing problems similar to Flint's, and Detroit officials began raising the rates they charged other municipalities for water. From 2004 to 2013, the amount Flint paid for its water almost doubled. In April 2013, the Flint city council voted to switch its water source to the Karegnondi Water Authority (KWA), a new regional pipeline project that would connect Flint directly with nearby Lake Huron. City officials projected that it would save Flint \$19 million over eight years. But there were two problems: the pipeline wouldn't be built until 2016, and Detroit quickly retaliated by saying it would stop selling water to Flint by April 2014.

The question soon became where Flint would get its water in the meantime. Dayne Walling, the mayor at the time, and state representative Sheldon Neeley, then a city-council member, say the idea to use

IMPOVERISHED CITY

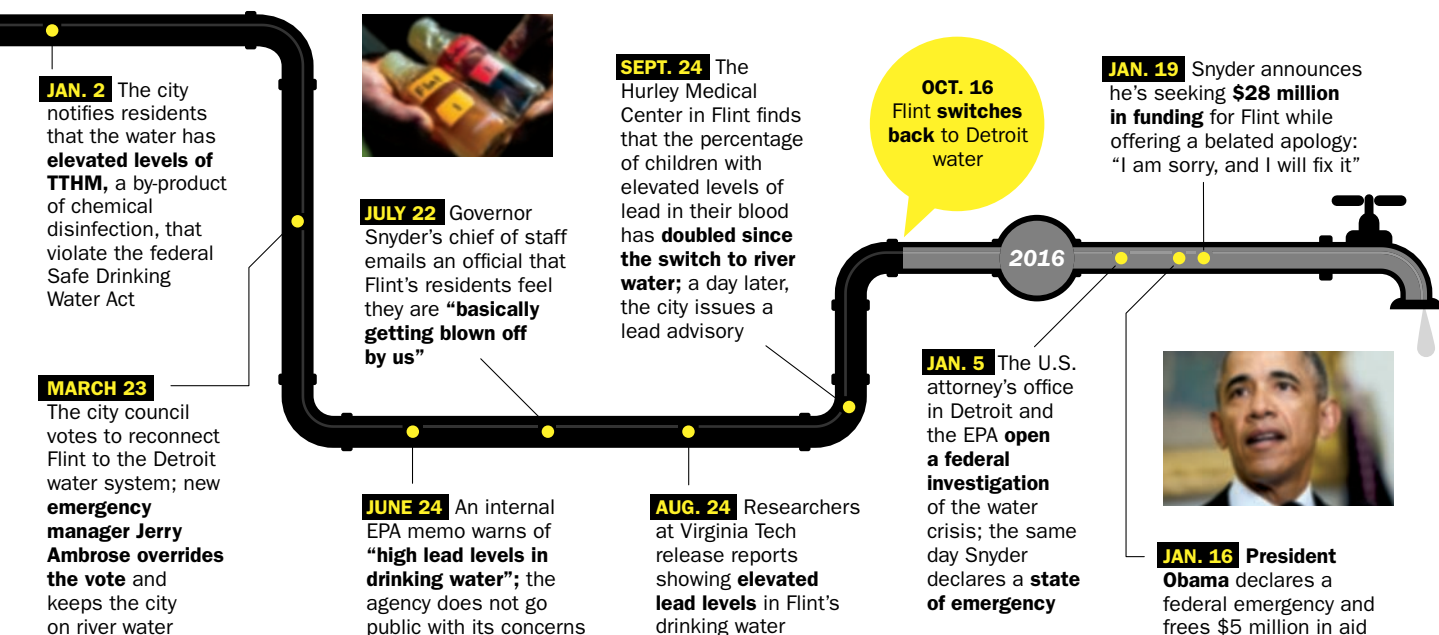
More than 40% of Flint's 100,000 residents live below the poverty line; the median household income (\$24,834) is half the average across Michigan (\$48,411)

the river as an interim source originated with emergency manager Ed Kurtz. (Kurtz did not respond to requests for comment.) What is clear is that in June 2013, two months after the city voted to join the KWA project, Kurtz signed a contract to set in motion using the Flint River as the primary source for municipal water. There was no public referendum or city-council vote. Still, the switch to the Flint River was celebrated by many local leaders. On April 25, 2014, city and state officials toasted with glasses of Flint River water as Walling hit a button officially shutting off Detroit's water. "This is indeed the best choice for the city of Flint going forward," Darnell Earley, the city's emergency manager from September 2013 to January 2015—he succeeded Kurtz—reportedly said at the time. "The water quality speaks for itself."

As Flint's leaders cheered their fiscal prudence, the chain of events they had set in motion began to wreak havoc on the city's aging water-delivery system. Water from the Flint River has particularly high levels of chloride, a substance so corrosive that its presence in road salts leads cars to rust. Most municipalities, including Detroit, add a chemical to help offset this corrosion. Yet despite having eight times as much chloride in it than Detroit water, the Flint River water was not treated with a corrosion inhibitor. As the water passed through the city's aging lead pipes, it absorbed the toxin into the supply.

It wasn't long before residents noticed a difference. "When they changed, almost immediately the taste, the odor, the color were different," says Jackie Pemberton, John's wife.

Four months into the switch, the city detected *E. coli* in the water and advised residents to boil it be-



fore consuming it. Soon, schools began buying bottled water in bulk. By October 2014, the water was so corrosive that GM announced it would no longer use municipal water at a local plant because it was damaging engine parts.

Still, the crisis stretched on as officials stonewalled citizens' complaints. In January 2015, Lee-Anne Walters asked the city to test the orange-brown water coming from her tap. The results showed that her home had far exceeded the acceptable levels of lead. Yet the official line remained that Flint's water was safe and any problems were isolated and not part of a systemic failure. Walters says the city told her they would shut off her water and hook her house up to a neighbor's via a garden hose as a workaround. As more citizens began to voice complaints, Jerry Ambrose, who had replaced Earley as Flint's emergency manager, argued that there was no need to revert to Detroit's water and besides, doing so would bankrupt the city.

Walters persisted. Bypassing the state, she contacted the U.S. Environmental Protection Agency, which tested her water and found even higher lead levels: 13,200 parts per billion, according to an EPA report. The federally accepted action level is 15. "I was at disbelief at that point," Walters says. "Not only were they fighting this at every twist and turn, but there was hazardous waste coming into my home."

The staggering results prompted Miguel Del Toral, an EPA water specialist, to send a memo to his boss and copy officials at the Michigan department of environmental quality (DEQ). His message was stark: Flint's water contained toxic levels of lead because the state had failed to ensure it was properly treated for corrosion. Despite telling the EPA that it

had a plan to limit corrosion, the DEQ apparently had none—a lack of safeguards virtually unheard of for any American city.

Instead of acting on Del Toral's memo, however, the EPA stayed quiet about its concerns, opting instead to pressure state officials behind the scenes. The decision backfired in a major way. The DEQ refused to acknowledge any risks to Flint's water supply, and an agency spokesman dismissed Del Toral to NPR as a "rogue employee." The EPA did not respond to requests for comment on its handling of the case.

Without the threat of exposure by the EPA, Michigan environmental officials used their own investigations to downplay concerns. Citing Walters' use of a water filter, DEQ officials disqualified the results from her home, even though the filter was removed during the test and in any event presumably would have lowered, rather than elevated, her lead levels.

The DEQ is "supposed to be the check on the city's decision," says Marc Edwards, a professor of environmental science at Virginia Tech whose research confirmed the elevated lead in Flint's water. "Once they started making the decisions, there was no check and balance left except for the residents fighting for the truth."

Not all officials were ignoring the problem. After meeting with Mays, who had become an outspoken activist, Snyder's then chief of staff, Dennis Muchmore, sent an email to state health officials saying that Flint residents felt as if they were "basically getting blown off by us."

In an interview in his Lansing office on Jan. 14, as protesters marched outside, Snyder said the email shows that his administration was not neglecting the city and Muchmore was "concerned that we were

UNELECTED LEADERS

The state's emergency-management law gives the governor's appointee sole decisionmaking power on budget issues in cities like Flint

THE GOVERNOR'S INBOX

Amid criticism of his handling of the crisis, Governor Snyder released his emails related to Flint's water on Jan. 20

getting straight answers so he asked tough questions and he got answers." Yet the governor didn't take any action until outside researchers got involved.

That began in August, when Walters contacted Edwards, who had done research exposing dangerously elevated lead levels in Washington, D.C., in the early 2000s. Edwards soon found levels of lead in Flint's water far beyond what the state was admitting. Soon after, Dr. Hanna-Attisha began running her own numbers on blood lead levels of children after hearing the city didn't have corrosion control in place. She found that the percentage of children in Flint with lead poisoning had doubled since 2013 and even tripled in some neighborhoods.

Within a week, Genesee County issued a public-health emergency and asked residents not to drink the water, marking the first official public acknowledgment that Flint's water supply had been poisoned.

FOR MANY OUTRAGED by the crisis in Flint, all roads lead to Lansing. For almost five years, Flint has been effectively run by a series of unelected officials appointed by the governor. In Michigan, the cities that are often under emergency management—like Detroit, Pontiac and Highland Park—have been predominantly African American in a state that is only 14% black. This has led to allegations of racism—an ongoing federal lawsuit contends that the state's emergency-management law violates the Voting Rights Act—and created the impression among many residents that if a lead outbreak had occurred in a more affluent and whiter city, the state would have responded with more urgency.

"The state was in charge of the city," says Eric Scorsone, a professor of government at Michigan State University and an expert in the state's emergency-management law. "So the state kind of has to own the problem."

In December, a task force appointed by Snyder chastised the DEQ for its actions, saying the department failed to properly interpret the federal rule that designated acceptable lead levels while failing to require corrosion-control treatment for Flint River water. Following the report, DEQ director Dan Wyant resigned.

Kevin Creagh, the new director of the DEQ, says

River." Mayor Dayne Walling invited everyone at today's event to toast to Flint's water. "It's regular, good, pure drinking water, and it's right in our backyard," said Mayor Walling. "This is the first step in the right direction for Flint, as we take this monumental step forward in controlling the future of our community's most precious resource."

April 25, 2014, **FROM: DAYNE WALLING, THEN MAYOR**
In a press release, the mayor's office marks the switch to Flint River water

- The quality of Flint water has been a high-profile concern in recent weeks, with residents complaining about the color, taste and smell of tap water since a switch to Flint River water as a temporary source as a pipeline is built to Lake Huron as a water source starting in 2016.
 - Residents have attended meetings with jugs of brownish water.
 - U.S. Kildee has worked with labor and community groups to distribute bottled water.

Feb. 1, 2015, **FROM: DAVID MURRAY, GOVERNOR'S AIDE**
Murray sent bullet points for a briefing in advance of an event related to the water issue

The issue of Flint water and its quality continues to be a challenging topic. The switch over to use Flint river water has spurred most of the controversy and contention. The DEQ and DCH feel that some in Flint are taking the very sensitive issue of children's exposure to lead and trying to turn it into a political football claiming the departments are underestimating the impacts on the populations and particularly trying to shift responsibility to the state.

We have put an incredible amount of time and effort into this issue because of the impacted neighbors and their children, and the KWA/DWSD controversy and Dillon's involvement in the final decision. Kildee is asking for a call with you. That's tricky because he's sure to use it publicly, but if you don't talk with him it will just fan the narrative that the state is ducking responsibility. I can't figure out why the state is responsible except that Dillon did make the ultimate decision so we're not able to avoid the subject.

Sept. 25, 2015, **FROM: DENNIS MUCHMORE, THEN SNYDER'S CHIEF OF STAFF**
Excerpt from an email titled "Flint water"

It seems that continuing to find funds to buy local residents home filters is really a viable option and Harvey and all are pursuing more assistance in that work. Almost all the "experts" I've talked to are convinced the problem is in the old lines leading to homes and short of a massive replacement CSO type bond that wouldn't resolve the issue for a couple of years, nature (temp reductions), filters and a final connect seem to be the best courses of action.

The residents are caught in a swirl of misinformation and long term distrust of local government unlikely to be resolved.

Sept. 26, 2015, **FROM: MUCHMORE**
Excerpt from an email titled "Flint updates"

My responses, enclosed here, are an effort to acknowledge something that has come out in the past week through internal review. Simply said, our staff believed they were constrained by two consecutive six-month tests. We followed and defended that protocol. I believe now we made a mistake. For communities with a population above 50,000, optimized corrosion control should have been required from the beginning.

Oct. 18, 2015, **FROM: DAN WYANT, THEN DIRECTOR OF THE DEPARTMENT OF ENVIRONMENTAL QUALITY**
An email accompanying the DEQ's response to the Detroit News for a story on Flint's water crisis

On Oct 21, 2015, at 7:38 AM, Snyder, Rick (GOV)

She claimed that two Flint children were in critical condition over lead. Her source was Rev. Bullock. I said I wasn't aware of that and that all of the identified children were being tracked by public health officials. Please check on the status of children with higher level of lead.

Thanks
Rick

Oct. 21, 2015, **FROM: SNYDER**
The governor was writing Sara Wurfel, at the time his press secretary

the agency was trying to act within technical compliance of its own internal regulations when it threw out samples like Walters' high lead levels instead of stepping back and looking at whether there was a systemwide failure. "I think there was some tone-deafness," he says.

Virginia Tech's Edwards believes that the agency was trying to simply wait out the switch over to the Karegnondi Water Authority and Lake Huron. "They didn't see the point in doing their job until that time," he says, adding that the corrosion control needed for Flint would have cost roughly \$80 to \$100 a day. "That was their whole attitude. Let's run out the clock." (DEQ officials were unavailable to comment.)

As the crisis turned into a political firestorm, Snyder, a former accountant who was elected on a promise of "relentless positive action," has tried to regain control. "As soon as I became aware of elevated lead levels in blood, we took action," Snyder told TIME. He denies knowing anything about lead levels before October, when the Michigan department of health and human services confirmed what Hanna-Attisha had found in children's blood levels, despite the fact that his former chief of staff had met with angry Flint residents in July. "I knew there were water issues in Flint," Snyder says. "But did I know there were unsafe blood levels? No."

Earning back the trust of city residents may prove impossible. Three class-action lawsuits have already been filed against state and city officials, and the U.S. attorney's office in Detroit has opened an investigation. But the legal issues are minor compared with the unknown future that many parents and their children face: years of anxious waiting to find out whether their child has developmental issues—simply because of turning on the faucet.

Ariana Hawk, 25, says she is terrified that's what's happening to her 2-year-old son Sincere Smith. He suffers from a full-body rash Hawk says is due to bathing in the tap water. "Every time he gets into contact with the water, he's burning and itching," she says. Hawk said a doctor advised her to stop using the city water. The family is awaiting the results of a test for lead poisoning, which has been detected in 35 children under 6 in Flint since October.

Other residents are trying to minimize the risk, however late. After one of her 5-year-old twin boys was found to have elevated levels of lead in his blood and developed anemia, Walters and her family now spend most of their time in Virginia. But even there, hundreds of miles from Flint, she won't trust what's coming out of her taps.

"We still don't drink the water," Walters says. "We still have a five-minute shower limit, even in Virginia. I will never again drink water from a water source because we're told to. Never again." —*With reporting by SEAN GREGORY AND ALEXANDRA SIFFERLIN/*
NEW YORK

VIEWPOINT

'THIS IS A RACIAL CRIME'

By Michael Moore

The people of my hometown, Flint, Mich., are being poisoned. Let me not mince words: This is a racial crime. If it were happening in another country, we'd call it an ethnic cleansing. Flint is a very poor, majority African-American city, and the Republican governor of Michigan, Rick Snyder, knows they have no political power, no lobbyists, no money. And they didn't vote for him. So when the residents of Flint, many of whom work two or three jobs for minimum wage, complained about the levels of lead in their water and told the governor their children were getting sick—two years ago!—he didn't have to listen.

Everybody knows that this would not have happened in predominantly white Michigan cities like West Bloomfield, or Grosse Pointe, or Ann Arbor. Everybody knows that if there had been

two years of taxpayer complaints, and then a year of warnings from scientists and doctors, this would have been fixed in those towns.

This started when the governor turned Flint's authority over to an "emergency manager," ostensibly to fix the city's finances. In order to save a few million dollars, the manager and the governor's office came up with the bright idea to unhook the city's water supply from Lake Huron and tap into the Flint River.

In the 20th century, General Motors made Flint the ultimate company town, and over the next 100 years the Flint River was turned into a sewer. Environmental experts warned the political leaders of the dangers of using the Flint River as a water source. They didn't listen.

So here we are. People need to stop saying that Flint was using Detroit's water. It was pure water from Lake Huron, the third largest body of freshwater in the world. A toxic water crisis is the last thing that should happen here.

The American middle class was built in Flint. Our grandparents knew that if they worked hard and the company prospered, they prospered. That was the American Dream, and it spread from Flint to the rest of the nation. Then around 1980, General Motors, a company that was making billions, figured out that it could make even more money by sending jobs to the nonunion South or overseas. This halved Flint's population and brought along unemployment, poverty, alcoholism, broken families and other ills. The crime rate skyrocketed. Wall Street came in and cut Flint's credit rating, making it impossible for Flint to recover, to attract jobs, to fix its infrastructure and schools. Flint went through a three-decade economic and social assault. Those who could get off the sinking ship—myself included—escaped. And those who were abandoned and left behind? They got their water poisoned. And when the governor found out, he kept quiet and let the poor of Flint continue drinking the poison. Marie Antoinette would've been proud. Except this time, no one offered any cake. "Let them drink the Flint River" has such a nice ring.

Moore is a filmmaker whose work includes *Roger & Me*, a 1989 documentary about Flint



Moore in 1989 at the old office of the newspaper he founded, the *Flint Voice*

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